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KARL W. KENYON

A SLEEK AND SHINING FUR SEAL RESTS ON A ROCK IN THE PRIBILOFS

When she shoves off on a fishing trip at sea, this mother seal leaves her pup ashore. On her return she singles her child out from thousands of other baby seals which crowd Pribilof beaches.

Bulletin No. 1, March 23, 1953

Brazil May Shift Capital to Central Plateau

BRAZIL's government is reconsidering an old plan to move the capital inland from its "temporary" seat at Rio de Janeiro. That glamorous metropolis on the Atlantic seaboard has been Brazil's capital since 1762. For nearly a century before that it was the government seat of the southern "captaincies," as the early Portuguese land grants were called.

Brazil's first constitution after the country won its freedom from Portugal in 1822 called for a new capital to be built near the geographic center of the nation.

Proposed Area One of Great Possibilities

Plans were made a number of years ago to set up a Federal District of about 7,000 square miles in the State of Goiáz, some 600 miles northwest of Rio (see map, opposite page). The government has recently allotted $1,500,000 to finance plans for the relocation. These are scheduled to be completed within three years.

Establishment of the capital, to be named Brazilia, in the area suggested would put the seat of government on a growing frontier and near some of Brazil's greatest mineral wealth. And Goiáz could give the nation a lesson in efficient capital building.

Goiânia, the state capital, laid out less than 25 years ago, now is a bustling city of more than 50,000 inhabitants. With a large airport, broad boulevards, garden areas, and well-planned parking spaces, it is designed to expand along with airplane and automobile traffic.

Country roads are being built to link farms with markets as a vigorous new population pours into the state. The 1950 census showed an increase of about 50 per cent over that of 1940, bringing the count up to 1,235,000. Many of these settlers came from the displaced-persons camps of Europe and the Near East, as well as from the more densely populated regions of eastern Brazil.

Transport Facilities Grow with the Population

Goiânia is a true city of the air age. Instead of being built at a railhead, it was located at a crossroads airport. The railroad stopped miles away. Supplies were brought in by truck and airplane.

The same is true of the state itself whose rail lines are not nearly extensive enough to take care of the growing traffic of the region. New farms and ranches are springing up around the airstrips in the bush country. Bulldozers and hand and animal labor are converting narrow, winding mud tracks into highways for trucks. Villages of immigrant farmers appear where there was nothing but bushland.

The frontier State of Goiáz is slightly smaller than Texas and lies for the most part in the central plateau. Its altitude varies between 1,500 and 3,000 feet and tempers a tropical-zone climate. The flat bush and grasslands of the eastern and central part of the state give way to rolling country in the western area toward the Mato Grosso border. There vast

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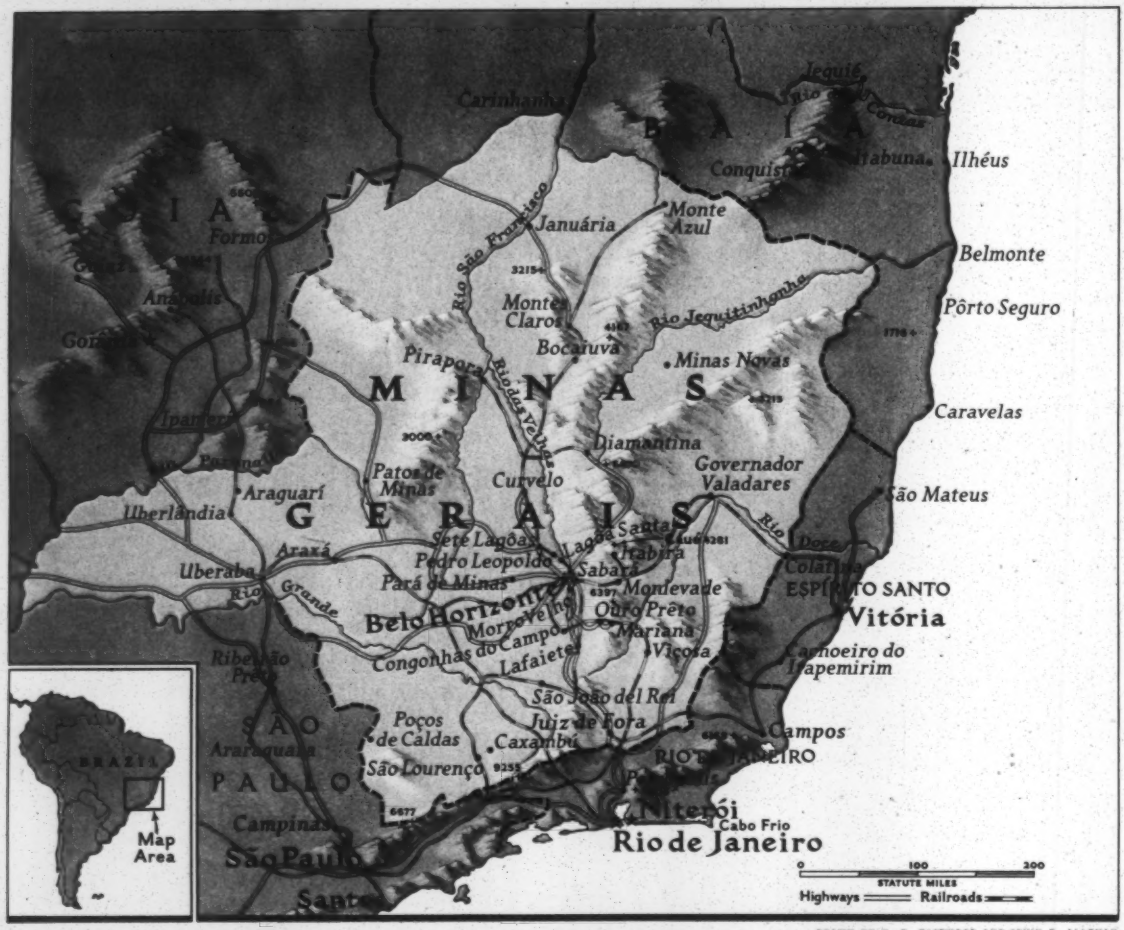

DRAWN BY H. E. EASTWOOD AND IRVIN E. ALLEMAN

BRAZIL MAY MOVE ITS CAPITAL

If the United States of Brazil (Bulletin No. 1) transfers its seat of government from Rio de Janeiro on the southern curve of the Atlantic coast to the plateau country of the State of Goiáz, a new state—Guanabara—will replace the old Federal District in which Rio now stands. It will be the republic's twenty-first state.

The proposed new Federal District will touch frontiers of Baia, Goiáz, and Minas Gerais ("General Mines").

This latter state lies between Rio and the debated district. Mountains of iron ore and rich deposits of manganese, diamonds, quartz, and other valuable minerals crowd the rugged region.

Modern pioneers have pushed across the mountains into the uplands of Goiáz. They have built a state capital—Goiânia—in a region which two decades ago was beyond railroads, highways, and even the telephone. Airplanes and motor trucks served as transport instead of the covered wagons that carried homesteaders west across the North American plains in the 19th century.

Railroads and highways are beginning to form a network for transportation over the more settled southeastern area of Goiáz. From Uberaba, junction point in western Minas Gerais, a railroad extends northward to Anápolis in the mountains northeast of Goiânia.

Brazil in recent years has changed the spelling of many of its place names. Baía is now Bahia; Goiáz, or Goiaz, is now Goiás.

Bulletin No. 2, March 23, 1953

Count on Havana for the Unexpected

HAVANA is a surprise-package city. For tourists, the Cuban capital is a gay resort. To political exiles it offers a haven. Architects call it a museum of building styles spanning four centuries.

It is two cities in one, each with its own atmosphere and charm. Modern Havana is a place of grand boulevards and smart shops, of fine hotels and restaurants. The old city conjures up the past with castles, forts, churches, palaces, and the crowded streets laid out in colonial days. The people are gay, hospitable, and fond of music.

Mileage Measured from Big Diamond

Anyone coming to Havana for the first time must expect the unexpected. For example, there are eating places called cafeterias—yet it is unthinkable that a customer should serve himself, as in the United States. The Capitol, where the country's laws are made, also offers the public free lessons in jujitsu.

This government building greatly resembles the Capitol in Washington, D. C., but what most impresses visitors is the big 32-carat yellow diamond set in the floor of the rotunda exactly under the center of the dome. It marks the starting point of the Central Highway and all distances are measured from it.

Several years ago thieves stole it from its gold and platinum setting. The gem was gone 14 months, then returned mysteriously by mail. It is now back in its old place.

Whether on the Central Highway putting miles between his car and the diamond, or driving in the city, the Cuban motorist goes places with Latin abandon and speed. The pedestrian has to keep his eyes open, particularly for Havana's *guaguas* (wah-wahs). These are old-fashioned buses, always jammed, and operated by the most independent of men.

If the guagua's driver isn't in the right mood he may ignore passengers waiting at a bus stop, or else start before all are aboard so that those left have to run to climb on. Guaguas, too, have been known to stop in the middle of traffic for a pretty girl. Passengers used to be a problem, themselves; they'd crowd aboard so fast the driver couldn't collect all the fares. The bus company was losing money until it hit on a bright idea. Raffle tickets were printed to be given out by the driver for each fare collected. Passengers stopped cheating; Cubans have a weakness for lotteries.

Most Visitors Arrive by Plane

Largest city in the Caribbean with a population of some 800,000, Havana is "home town" for one-sixth of Cuba's population. It entertains about 200,000 vacationists each year, most of them from the United States. Key West, Florida, is only 90 miles distant. The proximity of Cuba to the United States explains why most of its visitors come from the neighbor nation which helped it win freedom from Spain.

Only one out of seven of Havana's visitors arrives by boat. The other six come by plane. Yet the harbor continues a busy place. Most of the

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forested areas provide valuable timber for furniture and building.

The rolling countryside west of Goiânia is well watered by the streams descending from the hills. It is excellent cattle country. In areas not devoted to ranching, farmers grow such tropical crops as sugar cane, bananas, rice, and pineapples, as well as citrus fruits, vegetables, tobacco, and peanuts. Attempts are being made, with government encouragement, to increase production of coffee and wheat.

On the east, bordering both Goiáz and the proposed Federal District, is the State of Minas Gerais, the heartland of Brazil's mining wealth. There are whole mountains of rich iron ore, and deposits of manganese, bauxite, gold, diamonds, and quartz (illustration, below).

Supporters of the plan to move the capital believe it will stimulate settlement of the central region, giving a tremendous boost to the development of transportation, and marking a long step forward in the progress of South America's biggest republic.

NOTE: Goiáz may be located on the National Geographic Society's map of South America. Write the Society's headquarters, Washington 6, D. C., for a price list of maps.

See also, "Brazil's Land of Minerals," in *The National Geographic Magazine* for October, 1948; "Eclipse Hunting in Brazil's Ranchland," September, 1947; "Brazil's Potent Weapons," January, 1944; "Air Cruising Through New Brazil," October, 1942; and, in the GEOGRAPHIC SCHOOL BULLETINS, October 6, 1952, "Jungle Frontier Holds Wealth for Brazil." *(Back issues of the Magazine may be obtained by schools and libraries from the Society's headquarters at a special discounted price of 50¢ a copy, 1946 to date; 90¢, 1930-1945; $1.90, 1913-1929. Earlier issues at varied prices.)*

U. S. NAVY, OFFICIAL

DEFECTIVE CHUNKS ARE REMOVED FROM PEBBLES OF BRAZILIAN QUARTZ CRYSTALS

Found in huge quantities in Minas Gerais, quartz (silicon dioxide) appears in many forms. Radios, submarine depth-sounding devices, and various scientific instruments employ it. Its hardness adapts it to use in such domestic necessities as scouring soap and sandpaper, and in grinding, polishing, and engraving. The clear, colorless variety is called crystal.

Sealing Season Begins with Atlantic Hunt

THE coming of spring is the signal for seal hunters to start the new season's drive. First to set forth is the Canadian fleet. In March it sails from St. John's, Newfoundland, to hunt seals on the ice off Labrador. The Atlantic seal harvest continues to mid-April.

In the north Pacific, the hunting season for the fur seal of the Pribilof Islands comes later (illustration, cover). The bleak group of islands in Bering Sea north of the Aleutian chain witnesses the taking of seals from mid-June until the end of July.

Ships Are Small but Sturdy

Newfoundland's sealing industry, which once saw as many as 400 ships sail out of the harbor of St. John's early in March, declined during the 1930's. It has been revived since the end of World War II and is again adding materially to the income of Canada's island province. Its activities are carried on mostly off the coast of Labrador, the northernmost district of the Province of Newfoundland. Labrador lies on the mainland across the Strait of Belle Isle.

The sealing vessels leave St. John's with large crews a month or more before the seals appear on the ice. Small, tough, and iron-sheathed, the sealing ships crowd into the icy waters when the animals are sighted, moving in as close as possible (illustration, next page).

Then the men swarm over the sides onto the ice, seeking particularly the young "whitecoat" seals born only a month before. These seals are the best source of oil and skins. Sealing is hazardous business, with the ever-present danger that a hunter may be separated from his ship by large cracks in the ice or by dense fog.

The work is done on shares and the rewards are often sizable. In 1950 the sealer *Algerine* was out only a week and returned with 25,792 pelts, a cargo worth $70,000 which netted each member of the crew $209. Every man received another $100 from the sale of seal flippers, which are considered a delicacy in Newfoundland.

Antarctica's Seals Numerous and Large

In 1951 the *Arctic Sealer* topped this catch when it returned from a cruise with 37,339 pelts.

Enormous herds of seals gather on the ice floes of Antarctica. Most numerous are the Weddell seals. These gigantic creatures, some of which weigh a ton or more, are not now commercially important, but they were of considerable use to members of Admiral Byrd's Antarctic expeditions. They made a welcome addition to the menu.

Newfoundland is familiar to many air travelers. It has figured in aviation news from the pioneer days of transocean flying. From St. John's Captain John Alcock and Lieutenant Arthur Brown took off on the first nonstop transatlantic flight, in 1919. Cape Race and Trepassey at the island's southeastern tip were frequently mentioned in aviation news before World War II.

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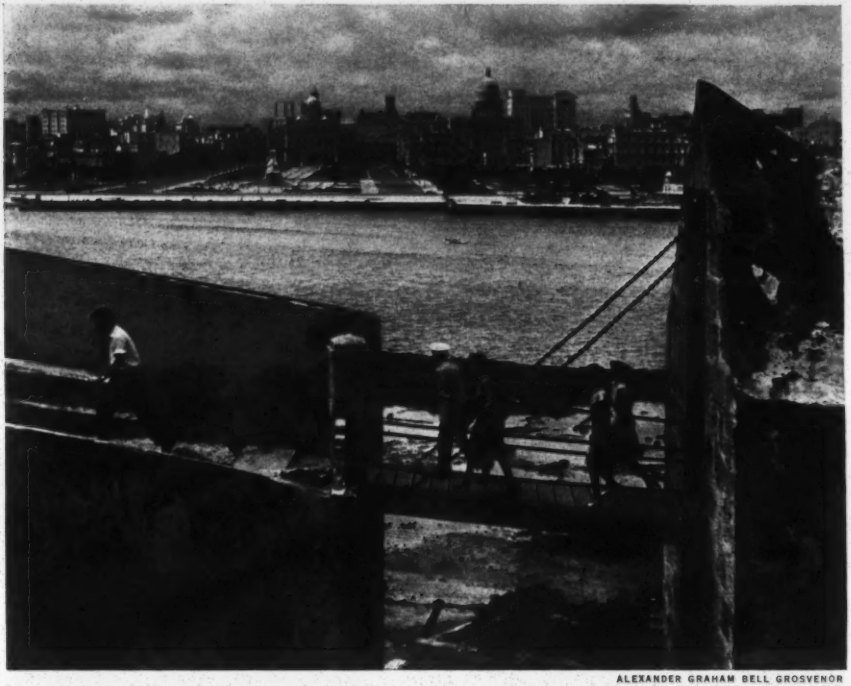
island's exports and imports are channeled through it. Cuba ships a lot, being the world's foremost producer of sugar. Within sight of Morro Castle, one of the old harbor defenses, the United States battleship *Maine* was sunk. The still-unexplained explosion led to the Spanish-American War and brought independence to the island.

In the 16th century, when Havana was subject to attack by ship, one of Morro's biggest guns boomed out at nine p.m. to summon the garrison and to tell the town curfew time had come. The gun is still fired punctually at the same time. People set their watches by it, but, instead of meaning curfew, the shot now reminds the city that the hour has come to go out and enjoy the evening.

Some may wish to go to the Blanquita Theater, the world's largest in seating capacity. It can accommodate an audience of 6,500—more, as astonished New Yorkers learn, than the Radio City Music Hall.

Producing surprises is an old story with Havana. In the 1700's the fortress of La Cabaña was built to strengthen the city's defenses. Tradition says the cost was so astronomical that the King of Spain blinked when he heard of the bill. Then he called for a telescope "in order to see from Madrid such a great work" on the other side of the Atlantic.

NOTE: Cuba may be located on the Society's map of Countries of the Caribbean. See also, "Cuba—American Sugar Bowl," in *The National Geographic Magazine*, January, 1947; "Cuba—The Isle of Romance," September, 1933; and, in the GEOGRAPHIC SCHOOL BULLETINS, February 6, 1950, "Planes Rain U. S. Visitors on Tropic Cuba."



ALEXANDER GRAHAM BELL GROSVENOR

CUBA'S DOMED CAPITOL AND PRESIDENT'S PALACE CUT HAVANA'S SKYLINE AS SEEN FROM THE DRAWBRIDGE OF MORRO CASTLE, THE OLD FORT THAT GUARDS THE HARBOR ENTRANCE

Bulletin No. 4, March 23, 1953

St. Bernards Giving Way to Shepherd Dogs

TIME-HONORED tradition is giving way to canine efficiency in the Alps. There the massive, mournful-faced St. Bernard is being replaced as a rescue animal by the smaller German shepherd dog.

More than 100 of these newcomers are now on the job in various sections of the snow-packed mountains. Only 15 of the St. Bernards remain at the monastery at the Great St. Bernard Pass, and these faithful animals are kept as pets rather than as rescue workers.

Trained by Monks

Dogs are still essential in Alpine rescue work, even though modern communication and transport facilities have lessened the need for their services. A dog can reach remote mountain areas in which mechanical transport is of no use, and he can guide human rescuers through blinding and bewildering snowstorms.

For two and a half centuries this has been the work of the gentle, giant St. Bernard. These dogs were especially trained by the monks of the Alpine hospice founded by St. Bernard de Menthon nearly a thousand years ago.

Records show that the monks kept watch dogs at the St. Bernard Hospice as long ago as 1670, although it is not quite certain what breed they were. The name St. Bernard applied to a dog first appears in 1774 records of the hospice from which the animal takes its name.

The St. Bernard is an efficient snow dog, but tests in the past 15 years have proved that the German shepherd is better at rescue work. On one recent occasion only the keen nose and persistent efforts of a German shepherd uncovered the body of a traveler buried deep beneath the snow of an avalanche.

In England, and occasionally elsewhere, the German shepherd, or "police dog," is called the Alsatian wolf dog, although it has no wolf ancestry and does not come from Alsace. It is a combination of several varieties of German sheep dogs. The name developed during World War I when many of these fine animals were captured from the Germans and brought to England as prisoners of war. The "police dog" tag was attached to the animal in the United States at the same time, but it is now officially registered as a German shepherd.

Other Breeds Also Work

Alpine rescue work is one of several honors for this remarkable dog. It has long been considered the best animal for leading the blind, and in the United States Army the German shepherd is the standard war dog.

Other dogs sometimes do as well in these specialized jobs. Doberman pinschers and boxers are notable as war dogs, and, of course, St. Bernards are famous as rescue animals. But the German shepherd meets the job specifications better than any other breed.

Substitution of the German shepherd for the St. Bernard in rescue work is largely due to the excellent nose of the former dog, to the intelli-

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Thousands of plane passengers have stopped briefly on Newfoundland's chilly shores on the journey to Europe. Many of these were service men being flown overseas from the United States and Canada during the war. Newfoundland is a crossroads on the North Atlantic run. Great airports were carved out of its wilderness at Gander and Stephenville, and at Goose Bay in Labrador.

The big sprawling island, with a population of 321,000, became the tenth province of Canada in 1949. It was Great Britain's first colony, having been discovered by John Cabot in 1497. Sir Humphrey Gilbert formally annexed the territory for the British crown in 1583.

NOTE: Newfoundland may be located on the Society's map of Canada, Alaska & Greenland.

For additional information, see "The Fur Seal Comes of Age," in *The National Geographic Magazine* for April, 1952; "Newfoundland, Canada's New Province," June, 1949; "The Romance of American Furs," March, 1948; "Seal Hunting Off Jan Mayen," January, 1948; and "The Sealing Saga of Newfoundland," January, 1929.

© HALLOWAY

WATCH CREWS FROM A SEALER CROSS ROUGH ICE IN THE DIRECTION OF THE HERD

The ship is steered through the nearest break in the ice and run in as close as possible to the crowd of seals. Sometimes the ice is loosened with dynamite for a closer approach. The men then go over the side in "watch crews" of about 50 men. Each man is equipped with a "bat," a pole about seven feet long tipped with an iron hook and spike. He clubs the seals with this and also uses it as he vaults from ice pan to ice pan. Equipment also includes a length of rope for fastening the skins together, a knife and a steel for sharpening it, compass, water canister, and a package of food for the day. Crews vie with each other to see which can bring in the greatest haul of seals.

Aqualungers Find Ship Sunk 22 Centuries

AN adventurous and exciting undertaking is in progress today off the south coast of France—the oldest known cargo ship in the world is to be raised from the Mediterranean where it sank almost 2,200 years ago.

The vessel's watery grave is off Grande Congloué, a tiny, steep-sided isle about five miles south of the busy port of Marseille. Divers equipped with Aqualungs have brought up from her cargo many hundreds of objects in daily use at a time when Rome was rapidly rising to power.

Fatal Voyage Route Traced

Discovery of the ship is regarded as one of the rarest archeological finds in recent years. Her hull, now being unloaded on the bottom as the first step in the raising process, is expected to yield a great treasure of antiquities. Captain Jacques-Ives Cousteau, noted undersea explorer who located the wreck, is directing the project sponsored by the National Geographic Society and French authorities.

Available evidence leads experts to believe the ship sank about the year 230 B.C. It was a 600-ton vessel, at least twice as big as the *Santa Maria*, flagship of Columbus in 1492.

Records of the dim past have established that the ship started her last voyage from Delos, smallest island in the Cyclades group southeast of the Greek mainland. It probably touched at a port in Latium, the ancient and present name for the region including Rome. The cargo included a quantity of tableware believed made in Latium.

Code markings enable experts to trace ownership of ship and cargo to one Marcus Sestius, a merchant of Roman birth who became a Greek citizen in 240 B.C. and made Delos his headquarters. Evidently he was a fifth columnist of his day. Livy (Titus Livius), the Roman historian, wrote that his mission was to help pave the way for Roman conquest of Greece, already a declining power.

Color Movies Recording Operation

The world will be able to participate in Captain Cousteau's unique salvaging job because a full-length motion picture in color is being made, as are still photographs in color and black-and-white.

"On location" will be 140 feet or more below the surface, normally a dim and gloomy place for divers, to say nothing of cameramen who need plenty of light. Captain Cousteau says that no one has ever made motion pictures at that depth before, and he had to solve enormous technical difficulties. He finally devised a special lighting frame which is lowered to the wreck and provides the necessary illumination.

The divers do not work in clumsy, heavily weighted suits with air lines going up to the surface. They are equipped with Aqualungs, underwater breathing devices which Captain Cousteau helped develop (illustration, next page).

"After we raise the ship," Captain Cousteau said, "we plan to duplicate her exactly and actually sail her on her last course—Delos to Latium, to

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gence that permits it to absorb training quickly and thoroughly, and to its "dogged" persistence.

A full-grown German shepherd dog in good condition weighs between 60 and 85 pounds. A full-grown St. Bernard weighs more than twice as much, ranging from 160 to 210 pounds. The great strength and stamina of the shepherd more than make up for its smaller size.

In spite of the virtual retirement of the breed from active service, a St. Bernard puppy recently was shipped from a Canadian kennel to a ski resort in the Andes of Chile to be trained for rescue work. This is the first time such an animal has been sent to South America for a career.

NOTE: For further information, see "Dog Mart Day in Fredericksburg," in *The National Geographic Magazine* for June, 1951; "Dogs of Duty and Devotion," December, 1941; "Man's Oldest Ally, the Dog," February, 1936; and numerous other articles listed under "Dogs" in the *Cumulative Index to the National Geographic Magazine.*

See also, in the GEOGRAPHIC SCHOOL BULLETINS, November 20, 1950, "Labrador Retrievers Guard Buckingham Palace"; and "War Dogs Called to Active Service," October 2, 1950.

WIDE WORLD

THIS FRIENDLY ST. BERNARD MAKES A FINE SOFT PILLOW FOR HIS YOUNG MASTER

While waiting to be judged at the Westminster Kennel Club Show at Madison Square Garden, New York, the massive pet takes a breather. At the height of their popularity, around the turn of the century, St. Bernards sold for as much as five or six thousand dollars each.

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the scene of her foundering—using only replicas of her original fittings, rigging, and navigational instruments."

Cargo recovered to date includes almost 1,000 amphorae—two-handled pottery jars used by the Greeks to store or transport wine, oil, honey, corn, and the like. Some brought up were still corked and contained the last essence of red wine from which the alcohol had disappeared. The ship also has yielded 1,400 dishes, including platters and cups, many of them beautifully decorated.

NOTE: Area where the ancient sunken ship is being raised may be located on the Society's map of Europe and the Near East.

For additional information, see "Fish Men Explore a New World Undersea," in *The National Geographic Magazine* for October, 1952.

F. DUMAS

EQUIPPED WITH AN AQUALUNG, A DIVER GETS A CLOSE-UP OF AN OCTUPUS IN ACTION

Writhing tentacles are not the dangerous crushing weapons sometimes seen in horror movies. Far from being the ferocious strangler of repute, this Mediterranean variety is shy and harmless.